

# Deploying Nomad in a Hybrid Architecture

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## Overview



- What makes a hybrid Nomad deployment?
- Network and security requirements
- Operational implications and limitations
- Reasons to choose hybrid implementations

# What Makes a Hybrid Nomad Deployment?

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# What Makes a Hybrid Nomad Deployment?

**Hybrid deployments include many types of underlying infrastructure**



**On-premises**



**One or more clouds**

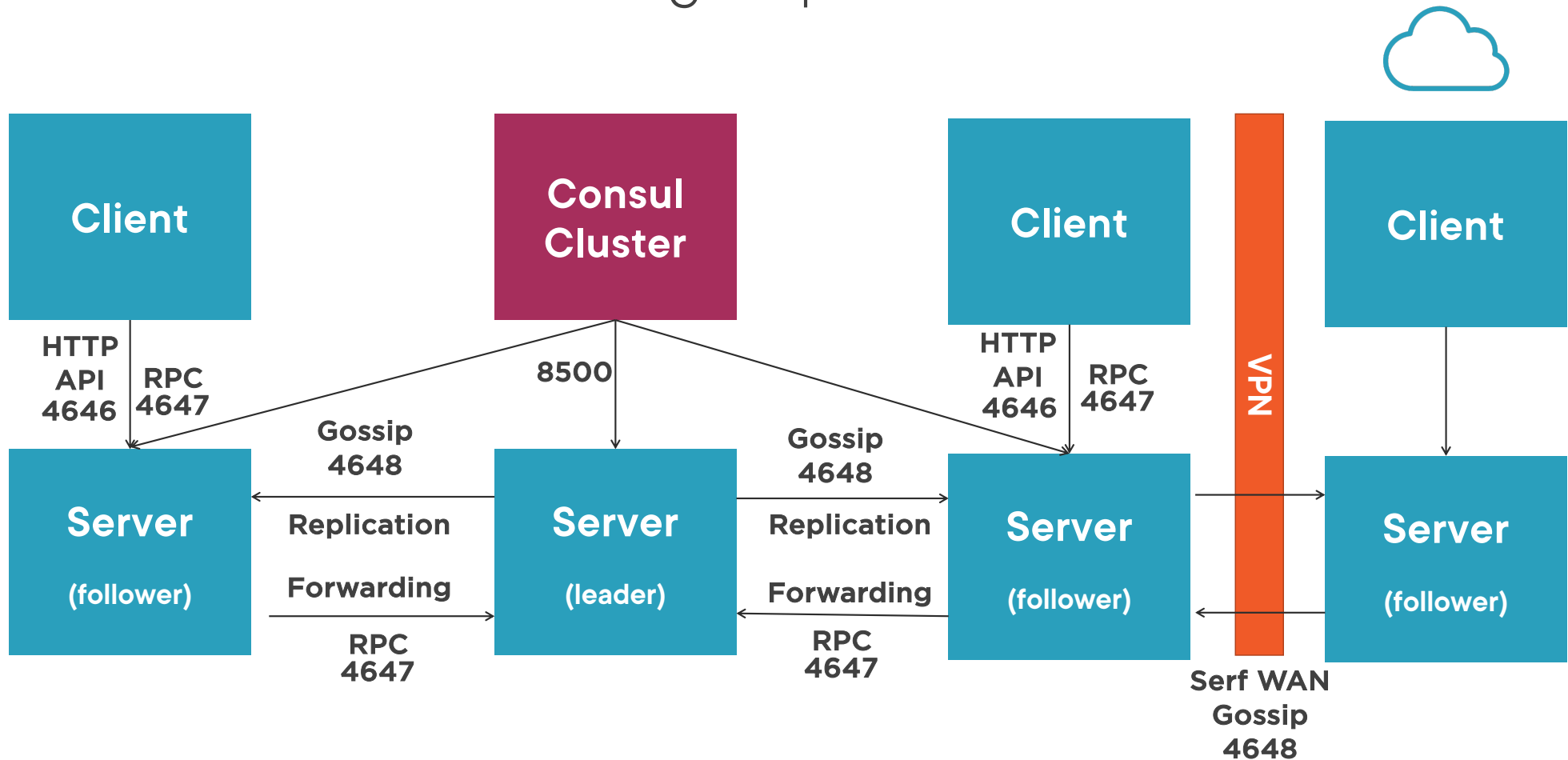


**Bare-metal and VM-based**

# Hybrid Environment Network and Security

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# Networking Dependencies





## Connect with Care!

Ensure that networking and security meet the compliance requirements for your organization including exposing external ports from within Nomad

# Operational Implications of Hybrid Deployments

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# Operational Implications of Hybrid Deployments



**Security and networking**



**Deployment and operations**

**Hybrid deployments unlock use-cases and opportunities but also add complexity to the day-to-day operations**



**Data and service locality**

# Why Use a Nomad Hybrid Deployment?

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# Why Use a Hybrid Nomad Deployment?



**Scale to meet fluctuating and growing demand**



**Leverage hardware and adjacent resources in the cloud**



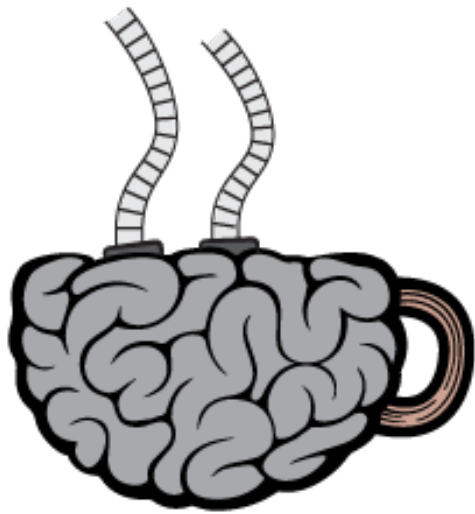
**Protect resources by internal corporate network**



**Common deployment pattern for applications**



**Allow workloads to remain close to users, services, and data**



**WIRED BRAIN**  
— COFFEE —

You are running a development environment and need to deploy production using Hybrid infrastructure.

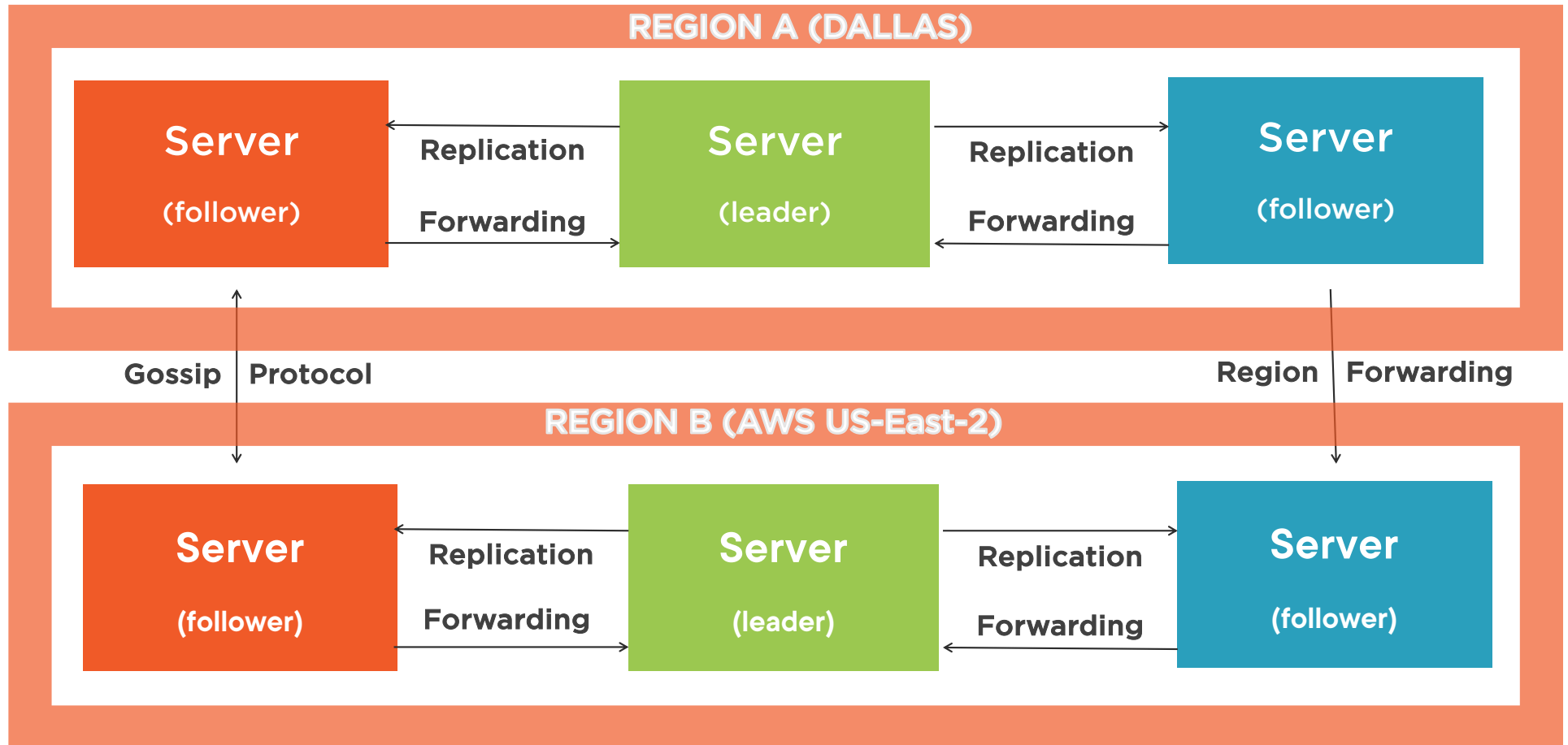
Wired Brain is using bare-metal on-premises and AWS in the cloud with a dedicated persistent VPN connection

Security requires some resources to remain on-premises

Other virtualized applications also reside on-premises and require continuous access by applications in Nomad

Both internal and externally facing applications needed

# Wired Brain Coffee



# Operational Tools for Wired Brain Coffee



**Terraform Cloud for  
Business**  
**RackN + Digital Rebar**



**Nomad (OSS)**  
**Consul (OSS)**



**New Relic**  
**AWS EC2 + VPC**

## Summary



- Reviewed a hybrid deployment needs
- Discussed networking and security
- Explored operational implications and limitations with hybrid model
- Used Wired Brain Coffee example to understand the need for hybrid Nomad

Up Next:

Configuring Access Using Nomad ACLs

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